

REMARKS

Claims 1-36 are presently active, of which claims 1, 15, 26, 27, and 33 are in independent form.

Claims 1-8, 10-13, 15-21 & 23-26 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Toebe, VIII et al. (U.S. Pat. No. 5,959,690) ("Toebe"). Applicants respectfully traverse this rejection.

Applicants believe the Office misunderstands the difference between the recited "decoded frame cache" in each claim series, and Toebe's use of stored reference frames for decoding MPEG "P" and "B" frames. Although recited limitations use language similar to that used to describe MPEG decoding, the meanings are different.

As stated in Toebe, "the MPEG player constantly keeps the last two reference frames available for use in decoding B and P frames when they appear" (Toebe col. 4, lines 21-23 (4:21-23).) Although limited to storing two reference frames, if as suggested by the Examiner, the Toebe MPEG player is considered to have "cached" these reference frames, this limited caching of just those two reference frames for decoding B and P frames is not what is claimed.

For example, as discussed at 7:3:14 in the specification, decoding frame "B5" requires identifying all frames upon which B5 depends, e.g., I1, I2, P1, and P2. These dependent frames are themselves decoded and cached in a decoded frame cache until all are available to allow decoding B5. This caching is not anticipated by the portions of Toebe cited by the Office, e.g., FIGS. 3, 4a, 4b, 8, and col. 15:24-16:37.

Rather than using the claimed decoded frame cache, instead Toebe teaches using the pre-existing past/future buffers provided by all MPEG decoders that store the

last/next reference frames (10:48-55) as a means to decoding a particular frame of interest. In particular, since decoding a particular target frame may require a series of "frames which must be parsed in order to parse the target frame," Toebees creates "a virtual MPEG stream out of the correct components of the original stream. The virtual stream will be sent to the MPEG player to reproduce the correct system state" (12:64-13:1) which results in correct reference frames being in the past/future buffers to allow decoding the target frame. While this is an interesting usage of the past/future buffers, this is not what is claimed.

Instead, claimed embodiments cache whatever frames are needed to provide random access to *any* desired frame within a video stream. For example, as recited in claim 1, to allow random access "playback to a particular frame," a check is performed to determine "whether a decoded version of the particular frame is in a decoded frame cache." If not, "and if the particular frame has a frame dependency," the frames upon which decoding the particular frame depends are identified, and if not already in the decoded cache, are decoded and cached so that "at least one of the decoded frames in the frame dependency" can be used "to decode the particular frame to create a decoded version of the particular frame." This is not anticipated by Toebees.

The independent claims 15 and 26 have corresponding limitations and therefore also cannot be anticipated by Toebees. There are additional reasons why the dependent claims are allowable over Toebees, but an explanation is not necessary in light of the independent claims being allowable.

Claims 9 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Toebees in view of Proctor et al. (U.S. Pat. No. 6,072,830). As with Applicants'

previous response, Applicants respectfully traverse this rejection. But, arguing these claims at this time is not necessary in light of the independent claims being allowable.

New claims 27-36 recite the decoded frame cache, which as discussed above, is not anticipated by Toebe.


CONCLUSION

Based on the foregoing, it is submitted that that all active claims are presently in condition for allowance, and their passage to issuance is respectfully solicited.


The Examiner is requested to contact the undersigned by telephone as Applicants believe such contact would further the examination of the present application.

Respectfully submitted,

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